

Research Needs Assessment USDA/Wildlife Services Program Methods Development

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BACKGROUND

In 1989, APHIS identified the need to assess the national research needs of the Wildlife Service (WS) Program. A survey of all WS State Directors resulted in a list of research needs and their relative priorities, based on species and affected resource groups. This assessment was later published by Packham and Connolly (1992)¹. At that time, the WS/Management Team also decided that these assessments of national research needs would be conducted about every five years. In 1991, the Program also convened an “Expert Panel” of stakeholders in science, industry, agriculture, and the environment in Denver, Colorado, to identify research approaches to address the wildlife damage problems and needs identified in the 1989 survey. In 1996, another WS program-wide Research Needs Assessment was completed. These 1989, 1991, and 1996 events still guide the WS Methods Development research planning, and these identified research needs have been used by the National Wildlife Research Center (NWRC) Director as principal guidance, along with Congressional Directives and Deputy Administrator guidance, with input from external sources and stakeholder groups, in allocating NWRC resources to specific research projects that address the WS Program’s priority research needs.

In 1996, the NWRC completed two additional initiatives to further improve and strengthen its research agenda and better align it with WS program and customer needs. First, all of the Center’s existing research was reorganized into individual multiyear, multidisciplinary projects, which address specific areas of research related to research priorities identified in the RNA process. These projects are of 3-5 years in duration, have clearly stated goals and objectives, projected milestones, expected outputs, periodic reviews, and annual progress updates. Second, to further emphasize research, the Center realigned these research projects under three Research Program Managers for bird, mammal, and product development research, and also reassigned a number of individuals from support units into research units.

Five years have now passed since the 1996 survey, and another survey has been completed to assess the current and future research needs identified by WS State Directors, NWRC scientists, and members of the National Wildlife Services Advisory Committee (NWSAC) to the US Secretary of Agriculture. This report lists the submitted research needs and a prioritization of those considered most important to the eastern and western regions, the NWRC, and the Program as a whole.

¹ Packham, C.J. and G. Connolly. 1992. Control Methods Research Priorities for Animal Damage Control. Proc. 15th Vertebrate Pest Conf. (J.E. Borrecco and R.E. Marsch, eds.) Pg. 12-15. University of California.

SURVEY AND PRIORITIZATION PROCESS

The APHIS/Wildlife Services (WS) Program has established a means of identifying and prioritizing wildlife conflicts and risks needing research attention through the use of a WS Research Needs Assessment (RNA) process conducted every five years. In this process, WS operational personnel from the state offices of the Eastern and Western Regions, as well as researchers from the National Wildlife Research Center (NWRC) are surveyed to identify the most important research needs. Previous assessments were conducted in 1989 and 1996; the most current RNA was completed in August 2001. These identified research needs are used by the WS/NWRC Director as principal guidance, along with Congressional Directives and Deputy Administrator guidance, in allocating NWRC resources to specific research projects that address the WS Program's priority research needs. Additionally, members of the National Wildlife Services Advisory Committee (NWSAC) requested the opportunity to be involved in the WS program's 2001 RNA process, and the members of the most current NWSAC were invited by the NWRC Director to provide input to the RNA survey.

On February 8, 2001, the NWRC Director set the 2001 RNA in place (Appendix I). On February 26, 2001 and April 20, 2001, the WS Deputy Administrator (Appendix II) and NWRC Director (Appendix III), respectively, solicited from WS State Directors, NWRC scientists, and NWSAC members, their three (in most cases) most important research needs. By May 25th, the NWRC Director had received 188 submissions from 26 State Directors (12 Eastern and 14 Western) representing 36 states, 23 NWRC scientists, and 6 NWSAC members. Each of the 188 needs was rewritten into a standard format and duplicate submissions were eliminated, reducing the input to 103 different needs. To arrive at a shorter list that still reflected relative priorities of the Program, duplicate needs were eliminated, reducing the input to 103 different needs. These were then grouped by research related to birds and mammals, affected resource, threatened and endangered species, wildlife disease, wildlife population-models/census/economics, chemical products/registration, and documentation/information (Appendix IV). NWRC does not have the resources to address all these listed needs of the WS program. Therefore, each member of the RNA team, with input from his respective office (WRO, ERO, and NWRC), then further prioritized those research needs. Prioritization criteria included:

- The extent of past research efforts versus the need for new research directions
- The need for immediate versus future information, methods and/or solutions
- The current availability of existing information, methods and/or solutions that simply need refinement versus the need for new information, methods and/or solutions
- The perceived value and/or magnitude of the resources impacted, damaged, or lost
- The state, regional, or national importance
- The perceived importance to stakeholders

Table 1 represents an unordered compilation of high priority research areas to the WS Program with specific examples listed individually or grouped. In general, the principal research needs identified in this 2001 survey were predominantly related to understanding and finding solutions to resolve (a) bird damage to agriculture and aquaculture, (b) waterfowl, goose, and vulture impacts in urban/suburban situations, (c) wildlife problems at airports, (d) predation impacts on livestock, other wildlife, and human health and safety, (e) mammal damage to forest, riverine,

and agriculture resources, (f) wildlife disease transmission, (g) invasive species, and (h) census methods for management of overabundant species. In addition, the WS Program's need to better understand the economics of damage by a variety of species, to develop and register new chemical products, and to improve information dissemination were clear.

A few clarifications to the list in Table 1 are needed. First, only research to be funded by Congressional appropriation to APHIS/WS has been included in this priority list. Therefore, research needs identified for Brown Treesnakes conducted with external funds, are not specified. Second, needs are not categorized under a product development research category, one of NWRC's three research programs, as specific needs were considered to be adequately encompassed under bird and mammal research categories. However, within the context of bird and mammal research, product development research is clearly required for problem resolution for certain species in particular situations. For example, identified products focused on contraceptives, sterilants, and vaccines, non-lethal repellents such as methyl anthranilate, DRC-1339, M44 registration for use in protecting natural resources, alternative rodenticides, odor and taste attractants, live traps, remote trap monitors, and pan tension devices. Of particular note is the recognition that NWRC should increase emphasis on non-chemical product development. Third, a number of the priority research areas to the WS Program expressed in this 2001 RNA are very similar to those identified in the 1996 RNA. Consequently, in 2001, the NWRC already has in place several projects that will immediately address the results of this 2001 prioritization process. NWRC's current research projects are summarized in Appendix V. Fourth, the eight identified documentation needs (cited in Appendix IV) were considered very important, and will be addressed directly by the Center and its Information Services Unit and by working with APHIS Legislative and Public Affairs and outside cooperators.